

Psychology Major Assessment Report for 2007-2008

I. Brief Summary of Assessment Plan: Outcomes Assessed 2007-2008

In our 2007-2008 Assessment Plan, we said we would assess:

Goal 1: Knowledge Base, Outcomes 1 and 3-11 by giving the Psychology Area Concentration Achievement Test (Psych ACAT) to our senior psychology majors in P457 Senior Seminar in Spring, 2008.

Outcomes 1 and 3-11 identify specific content areas we have determined as important to our major. Because we are using the Psych ACAT to evaluate these outcomes, we did not need components. Each outcome is represented by a subtest of the ACAT, except Outcome 10 which is represented by two subtests. The outcomes are as follows...

Students will demonstrate basic psychological literacy in:

- Outcome 1: Psychological Perspectives
- Outcome 3: Research Methods
- Outcome 4: Statistics
- Outcome 5: Biological Bases
- Outcome 6: Learning
- Outcome 7: Cognition
- Outcome 8: Development
- Outcome 9: Individual Differences
- Outcome 10: Psychological Disorders & Treatments
- Outcome 11: Social Psychology

Benchmarks. We have three benchmarks:

- 1) as a group, students taking test will achieve 50th percentile or higher on each subtest,
- 2) at least 75% of individuals will achieve 50th percentile or higher on the subtests representing Outcomes 1, 3, 4, and 8 because those outcomes represent coursework that all psychology majors must take, and
- 3) at least 75% of individuals will achieve 50th percentile or higher on at least one of the subtests representing each of the course clusters required for psychology majors. There are two course clusters in the major. Cluster 1 is P319 Personality, P320 Social, P303 Health, and P324 Abnormal. Cluster 2 is P325 Learning, P326 Neuroscience, and P335 Cognition. Majors must take two courses within each cluster. Thus, benchmark 3 is met when at least 75% of the students achieve 50th percentile or higher on at least one subtest that evaluates each cluster.

Changes made since plan was submitted (& why).

We originally had only Benchmark 1, but received feedback from the Assessment Council indicating that the benchmark needed to identify number or percentage of individuals achieving the outcome. In addition, we had to find a way to

make our benchmarks represent the fact that not all students take all the classes represented by each of the ACAT subtests and thus should be expected to perform better on some subtests than on others. We added benchmarks 2 and 3 both to accommodate the Assessment Council's request and to ensure we were looking at the ACAT data in a way that best matches the course requirements in our curriculum. At present, we find both ways of looking at the data (group and individual) to be useful, so we kept the original benchmark as well.

Goal 2: Research Methods, Outcome 5, Design Basic Studies to Address Psychological Questions We began assessment of the 2007-2008 data with the components, criteria, and benchmarks as listed in Table 1 below.

Table 1. Components and Criteria for Goal 2, Outcome 3

Components for Goal 2: Research Methods, Outcome 3 Design Basic Studies	Criteria (i.e., Levels, Characteristics)
Research Question/Purpose/Objective Clear specification of hypothesis Hypothesis appropriate to lit. review Hypothesis appropriate to method Operational definitions are clear	Present - Absent Clear - Somewhat Clear - Unclear Appropriate - Somewhat Appropriate - Inappropriate Appropriate - Somewhat Appropriate - Inappropriate Clear - Somewhat Clear - Unclear

Benchmark. 75% of psychology majors will exhibit the following pattern of performance: Research Question (Present), Clear Hypothesis (at least Somewhat Clear), Hypothesis Appropriate to Lit. Review (at least Somewhat Appropriate), Hypothesis appropriate to method (Appropriate), and Clear Specification of Operational Definitions (at least Somewhat Clear). This pattern reflects what we most heavily emphasize (e.g., having a research question or purpose and making sure the hypothesis is appropriate for the method being used) in the course for which students write the research report used for assessment of this outcome. This pattern also better reflects the fact that some of these components are much more difficult for students to do than are others, particularly considering the assessment is being done with students in a 200 level course and that the paper we use for this assessment is their first effort at writing a research report in psychology.

Goal 8: Career Development & Planning, Outcome 1 Demonstrate Basic Knowledge of Careers in Psychology

Although the 2007-2008 plan did not originally include anything about assessing Goal 8 Career Development and Planning, our 2008-2009 plan does. We decided to get a head-start on development of an assessment tool this year and so will report preliminary findings. The Psychology faculty met during the Fall 2007 semester and identified the content that we felt was most important for students to master in the P199: Planning Your Psychology Career course and modified our Goal 8 outcomes to better reflect revisions to the course and its assignments. Our one-credit P199 course is required of all psychology

majors, preferably within the first year of their declaring a psychology major. The main course objectives are to educate students about the many possible educational and career paths they may choose as psychology majors, and to require students to take an active role in planning what specific steps they need to take in order to reach their own career goals. In addition, students are encouraged to use the course to make connections with the various psychology faculty, and with departments around campus, who they feel can be helpful in their pursuit of a career in psychology. Accordingly, the central content which the psychology faculty emphasized in our meeting mainly involved the importance of distinguishing various professional roles associated with psychology; identifying the range of possible career paths related to an education in psychology; and understanding the process of preparing for graduate education, both before and after graduation from a bachelor's program. Following this discussion, we decided to do a preliminary evaluation of students understanding of careers in psychology by creating a quiz of career knowledge. Because this assessment really was preliminary, we have not yet set a benchmark (but are aware we will need to do so for 2008-2009). Table 2 below describes the revised components of this outcome.

Table 2. Components for Goal 8, Career Development & Planning, Outcome 1
Demonstrate Basic Knowledge of Careers in Psychology

Components for Goal 8, Outcome 1
Areas of specialization in psychology
Different types/categories of jobs available to those with education in psychology
Qualities/skills desired in bachelor's level job applicants
Differences between psychologists, psychiatrists, social workers and the terms therapist and counselor
Different types of graduate degree programs open to undergraduate psychology majors who want further education
Qualities/skills desired in graduate school applicants
Salaries for bachelor's level vs. grad-school level jobs

II. Assessment Methods

Goal 1: Knowledge Base, Outcomes 1 and 3-11 (Psychological Perspectives, Research Methods, Statistics, Biological Bases, Learning, Cognition, Development, Individual Differences, Psychological Disorders/Treatments, Social Psychology)

We currently use the Psychology Area Concentration Achievement Test (ACAT) to assess these outcomes. The ACAT allows us to choose the topic areas within psychology we want to include on our students' tests and provides data that shows us how our students' performance compares to psychology students at other institutions that use the ACAT. The ACAT conducts scoring on a rolling calendar such that (if carefully timed) we can receive students' scores back before the end of the semester, allowing us to close the

feedback loop by sharing scores with the students. We can accomplish this by informing students of aggregate group performance either in class or via Oncourse. Students are told they can make individual appointments with their Seminar instructor to see their individual results if they wish.

Students take the Psych ACAT just before or just after Spring Break of their final spring semester of their Senior year in their P457 Senior Seminar class. The faculty member teaching the seminar administers and proctors the test, after which it is sent back to the company for scoring. Psychology faculty reviewed/discussed the ACAT scores during their annual Summer Retreat. There were no changes to this assessment method since the plan was submitted.

Goal 2: Research Methods, Outcome 5 Design Basic Studies We assessed this goal using student papers drawn from P211 Methods of Experimental Psychology. The activity/object students used to demonstrate achievement of Outcome 5 was the final draft of the Survey Research Report Assignment in P211 (collected during the last week of classes in both Fall, 2007 and Spring, 2008). We collected 14 papers from psychology majors across those two semesters. Copies of each paper were given to each full-time psychology faculty member to be evaluated using the outcomes, criteria, and benchmarks described in Section I. Faculty met as a group to calibrate the P211 paper evaluations. We each read and evaluated the components of each paper individually, then compared evaluations and resolved any differences of opinion. We have had similar discussions in past years, which resulted in a higher level of agreement this time than in the past. There were no changes to this assessment method since the plan was submitted.

Goal 8: Career Development & Planning, Outcome 1 Demonstrate Basic Knowledge of Careers in Psychology To assess the students' understanding of these central concepts, the instructors of the P199 course (Dr. Angela Becker in Fall 2007, and Dr. Kathy Holcomb in Spring 2008) administered a brief multiple-choice quiz covering this content. As the psychology faculty did not compile the list of central content until partway into the Fall 2007 semester, Dr. Becker administered this 8-item quiz only at the end of the term. However, Dr. Holcomb administered the same 8-item quiz at the start of the Spring 2008 term as a pretest measure, and then at the end of the term as a post-test measure (to which she added two more items). Examining student scores on these quizzes provides some information about the degree of understanding that students possessed about the central content of P199, and highlights some topics which may benefit from additional emphasis in future iterations of the course.

III. Description of Assessment Results

Goal 1: Knowledge Base, Outcomes 4-11 (Statistics, Biological Bases, Learning, Cognition, Development, Individual Differences, Psychological Disorders/Treatments, Social Psychology)

Because the sample size for Senior Seminar is rather small each year, we tend to look for trends across years. Because we have used the ACAT as an assessment tool now for three years, the table

below provides the data for each of those three years. Although this report does not require inclusion of previous data, we do so for our own benefit; it makes it easier and more reliable to look for patterns in the data.

Our first benchmark was having our students (as a *group*) achieve at least the 50th percentile in comparison to the national sample of other Psychology Majors who also took this test. This data is presented in the following table for each subtest/learning outcome.

Table 3. Psychology Area Concentration Achievement Test (ACAT) subtest results in relation to outcomes for Goal 1: Knowledge Base

Areas of Psychology Tested (i.e., ACAT subtests)	2006 group %tile n = 12	2007 group %tile n = 4	2008 group %tile n = 10
Subtest: History & Systems (Outcome 1: Perspectives in Psychology)	45*	42*	20*
Subtest: Experimental Design (Outcome 3: Research Methods)	62	53	58
Subtest: Statistics (Outcome 4: Statistics)	64	72	48*
Physiological (Outcome 5: Biological Bases)	71	47*	57
Human Learning/Cognition (Outcomes 6 & 7: Learning & Cognition)	67	66	61
Developmental (Outcome 8: Developmental)	53	48*	47*
Personality (Outcome 9: Individual Differences)	48*	41*	35*
Abnormal (Outcome 10: Psychol. Disorders & Treatments)	57	63	60
Clinical/Counseling (Outcome 10: Psychol. Disorders & Treatments)	54	46*	52
Social (Outcome 11: Social Psychology)	56	75	33*
OVERALL PERFORMANCE	59	55	40*

Note: * indicate benchmarks not met

As you can see in Table 3, we found for the first year that the overall performance has dropped below the 50th percentile. This drop is difficult to interpret, however, due to extenuating circumstances involved in administering the ACAT exam. The day that the ACAT was scheduled, the campus had to be shut down due to weather-related issues. Because the class schedule was already set for the remainder of the semester, students had to make arrangements to come in over spring break or the week following to take the test. The test was taken in the psychology lab, and for most of the students, it was proctored by a professor other than the instructor of record for this course. Therefore, the change in conditions may have lead to less valid exam scores. Examining the continuation of this trend will be important to determine the role of testing conditions in this drop in overall performance.

In 2008, we continued a trend of low scores in Outcome 1 (perspectives in psychology), and Outcome 9 (individual differences). Although perspectives in psychology (Outcome 1) are introduced in a number of our courses, we are not surprised by the performance on Outcome 1, since our students were not required to take a class that specifically emphasizes this outcome. We had already made a change to our curriculum to remedy this. Those students beginning the psychology major in Academic Year 2006 or later are now required to take P457 History & Systems of Psychology which will emphasize Outcome 1. However, none of the students taking the ACAT in 2008 had taken the course, although several will take it in the fall semester. It will take several more years before we should expect to see improvement in Outcome 1. For Outcome 9, individual differences, the instructor for the course is considering a different approach that may address students' weakness in this area. This course is also only offered every other year and is not required for all students.

We had outcomes for which we had previously met benchmarks dip below our benchmark in 2008 as well. Outcome 4 (statistics) and outcome 8 (developmental) were below the benchmark, although very close. Outcome 11 (social) was much lower, however, only 3 students had taken the social psychology class, and two had taken it more than 2 years prior to the ACAT. In addition, the courses that emphasize Outcome 11 are only offered every other year and are not required for all students. This may have contributed to the lower group percentiles for these outcomes.

Although the psychology faculty find the first benchmark useful, our second and third benchmarks for this set of outcomes, are likely to be of more interest and use to the Assessment Report Reviewers because they focus on *percentages of individuals* achieving benchmarks rather than on *overall group* performance.

Our second benchmark is that at least 75% of individuals will achieve 50th percentile or higher on the subtests representing Outcomes 1, 3, 4, and 8 because those outcomes represent coursework that all psychology majors must take.

2008 Results

Outcome 1: Psychological Perspectives: 0% at 50th percentile

Outcome 3: Research Methods: 50% at 50th percentile or higher

Outcome 4: Statistics: 50% at 50th percentile or higher

Outcome 8: Development: 50% at 50th percentile or higher

We did not meet the benchmark on any of these four outcomes. Outcome 1, while particularly bad, is one in which none of the students had yet taken the course (History & Systems) in which this material is emphasized, since it is required for students who entered in Fall 2006 or later. More concerning is the low performance across the other 3 outcomes, which may be explained by the unusual testing conditions or the length of time since the students took the classes relevant to those outcomes (students are encouraged to take research methods and developmental courses in the first two years of their program).

Our third benchmark is that at least 75% of individuals will achieve 50th percentile or higher on at least one of the subtests representing each of the course clusters required for psychology majors. There are two course clusters in the major. Cluster 1 is P319 Personality, P320 Social, P303 Health, and P324 Abnormal (which represent knowledge Outcomes 9, 10, and 12). Cluster 2 is P325 Learning, P326

Neuroscience, and P335 Cognition (which represent knowledge Outcomes 5, 6, and 7). Majors must take two courses within each cluster. Thus, Benchmark 2 is met when at least 75% of the students achieve 50th percentile or higher on at least one subtest that evaluates each cluster.

2008 Results

Cluster 1: 70% had at least 1 of the 3 tests at 50th percentile or higher

Cluster 2: 90% had at least 1 of the 2 tests at 50th percentile or higher

The results for the third benchmark are more promising than those from the previous ones. In Cluster 2, we met the benchmark, and we missed the benchmark by only 5% for Cluster 1. Thus, students seem to be learning the material from the clusters. It is worth noting that not only do students tend to take these classes later in their programs (so there has been less time to forget the information) but that these classes are also of more inherent interest to students than the courses that are relevant to research methods and statistics knowledge outcomes.

Goal 2: Research Methods, Outcome 5, Design Basic Studies.

A group summary of how students performed on each individual component is shown below in Table 4; this data is most useful to psychology faculty for identification of what needs the most improvement and discussions of ways to help students improve. As was the case in 2005-2006 and 2006-2007, our students did the best with Research Question/Purpose/Objective and Hypothesis Appropriate to Method. These are the two components that instructors for this course emphasize most heavily, thus it is logical that higher achievement occurred on these components. Although there was some decline in performance on Hypothesis Appropriate to Method this year, this was due to the faculty modifying the definition of the level “Appropriate” during the evaluation session. In the past, “Appropriate” meant the hypothesis was appropriate to the general type of method (i.e., descriptive, correlational, or experimental/causal). We modified the definition by adding that “Appropriate” should also mean the hypothesis was appropriate to the specific data-gathering technique used (e.g., observation, survey). This issue had never come up before and occurred primarily because in one of the classes many of the background articles the students read for their literature review were observational studies rather than surveys. Several of the students modeled the writing of their hypotheses after those in the articles they read (a reasonable strategy for a student writing his/her first research hypothesis). Thus, student performance was influenced by the type of articles available for the topic chosen that semester; now that we have seen students do something like this, the faculty teaching the class can add a prompt to the hypothesis assignment that will ask students to pay more attention to this feature of their hypotheses.

In 2005-2006, we noticed students in our Research Methods course were having difficulty writing a hypothesis appropriate to the literature review in their final papers. In 2006-2007, faculty teaching Research Methods revised an assignment related to the final paper. Rather than simply asking students to turn in a hypothesis, the new assignment asked them to respond to two additional questions: “What information in the background articles you read leads you to believe that your hypothesis is plausible,” and “What information in the background articles you read leads you to believe testing this hypothesis is the logical next step in the research on this topic?” This revised assignment requires them to start thinking about how the background literature and their hypothesis are (or are not) related earlier in the

semester. They receive feedback from the instructor on this revised assignment and are asked to use that feedback when writing the final paper. As you can see in Table 4, this resulted in sharp improvement in 2006-2007, so we used the same assignment in 2007-2008 and in class placed more emphasis on the importance of having a strong relationship between hypothesis and literature review. In 2007-2008, the percentage of students writing hypotheses appropriate to the literature review increased again. Although we did have a few more that were inappropriate on this measure than in the previous year, the overall performance pattern is still much better than in 2005-2006.

Table 4. Student Performance on Individual Components of Goal 2, Outcome 5 Across the Past Three Years (**this year's data in bold face type**)

Components for Goal 2: Research Methods, Outcome 5 Design Basic Studies (with a brief summative evaluation statement for 07-08 performance in comparison to previous two years)			
	year	n	<u>Percentage</u> of students who achieved each level
Research Question/Purpose/Objective (<i>Good performance with steady improvement</i>)	05-06	15	Present (73) - Absent (27)
	06-07	14	Present (86) – Absent (14)
	07-08	14	Present (93) - Absent (7)
Clear specification of hypothesis (<i>Moderately consistent, moderate performance</i>)	05-06	15	Clear (53) - Somewhat Clear (27) - Unclear (20)
	06-07	14	Clear (50) - Somewhat Clear (43) - Unclear (7)
	07-08	14	Clear (43) - Somewhat Clear (43) - Unclear (14)
Hypothesis appropriate to lit. review (<i>Currently at moderate performance level, but has improved sharply and steadily since 05-06</i>)	05-06	15	Appropriate (7) - Somewhat Appr (53) - Inappr (40)
	06-07	14	Appropriate (29) - Somewhat Appr (64) - Inappr (7)
	07-08	14	Appropriate (50) - Somewhat Appr (36) - Inappr (14)
Hypothesis appropriate to method (<i>Good to moderate performance with clear and consistent decrease in percentage of inappropriate responses</i>)	05-06	15	Appropriate (87) – Somewhat Appr (0) – Inappr (13)
	06-07	14	Appropriate (86) – Somewhat Appr (7) – Inappr (7)
	07-08	14	Appropriate (64) – Somewhat Appr (29) – Inappr (7)
Operational definitions are clear (<i>Poor performance, needs improvement</i>)	05-06	15	Clear (20) - Somewhat Clear (47) - Unclear (33)
	06-07	14	Clear (7) - Somewhat Clear (57) - Unclear (36)
	07-08	14	Clear (21) - Somewhat Clear (43) - Unclear (36)

Although the above presentation of the data is of particular use to the psychology faculty in making decisions about how to modify curriculum to improve student performance, it does not directly address the benchmark described in Section I of this report.

The Benchmark is that 75% of psychology majors will exhibit the following pattern of performance: Research Question (Present), Clear Hypothesis (at least Somewhat Clear), Hypothesis Appropriate to

Lit. Review (at least Somewhat Appropriate), Hypothesis appropriate to method (Appropriate), and Clear Specification of Operational Definitions (at least Somewhat Clear). In 2007-2008, 43% of the students (6 of 14) showed the described pattern of performance. The percentage achieving benchmark in 2006-2007 was also 43% (6 of 14). Although the steady performance of 43% for the past two years does not meet the benchmark, these two years were a clear improvement over the 27% who showed the expected pattern of performance in 2005-2006. Thus, we have made progress. A more careful look at individuals' performance tells us that three students did not achieve the desired performance pattern because their hypotheses didn't match the data-gathering technique used (i.e., survey) and thus they didn't perform strongly enough on the Hypothesis Appropriate to Method component. As mentioned above, a simple addition to the hypothesis assignment instructions asking students to check that their hypothesis matches their data-gathering technique is likely to help. Two additional students did not achieve the desired performance pattern because their operational definitions were unclear. We need to think about ways to help students do a better job of clarifying their operational definitions.

Goal 8: Career Planning and Development, Outcome 1 Demonstrate Basic Knowledge of Careers in Psychology

Table 5 below describes the items on the quizzes, divided into three general categories, along with percentage figures indicating the proportion of students who answered the corresponding items correctly at each administration. Further narrative summary follows.

Table 5.

Category - Items	Late Fall 2007 (Becker)	Early Spring 2008 (Holcomb)	Late Spring 2008 (Holcomb)	Combined (end of terms)
Duties of various types of professionals working in psychology* ^a	78.7%	73.3%	84.7%/75.3%	81.7%/73%
-Distinguishing clinical psychologists from counseling psychologists	93%	95%	100%	96.5%
-Subjects of study of industrial/organizational psychologists	93%	75%	87%	90%
-Distinguishing psychiatrists from other professionals in psychological practice	50%	50%	67%	58.5%
-Differences between Ph.D. and Psy.D. degrees (Late Spring 2008 only)	-	-	47%	47%
Employment possibilities in psychology* ^a	100%	96.7%	97.7%/98.3%	98.8%/99.1%
-Job possibilities with B.A. psychology degree	100%	100%	100%	100%
-Qualities of candidates desired by employers	100%	90%	93%	96.5%
-IU Kokomo resources that assist with career and educational questions	100%	100%	100%	100%
-Salary expectations for various educational levels within psychology (Late Spring 2008 only)	-	-	100%	100%

Planning to apply to graduate school*	57%	57.5%	73.5%	65.3%
-What comprises a strong application to graduate school in psychology	100%	95%	100%	100%
-IU Kokomo faculty recommendations regarding enrollment in practica vs. independent research study	14%	20%	47%	30.5%

*These rows depict averages of the percentages of students who correctly answered the various quiz items measuring each content category. ^aThe Late Spring 2008 and Combined data for these categories are depicted both without (before the slash) and with (after the slash) the additional items Dr. Holcomb added in that term to the quiz.

We would like to point out two general patterns in the above data, before addressing specific content areas of strength and weakness for psychology majors enrolled in these classes. First, student understanding of these concepts appeared to be approximately as strong at the start of the Spring 2008 semester (e.g., before P199 instruction) as it was at the end of the Fall 2007 semester previous (e.g., after extended instruction and practice in P199). This could be due to the fact that various psychology courses cover some aspects of these central content areas, either formally or informally. Therefore, students enrolled in the Spring 2008 term may have absorbed some of this information prior to entering the P199 class. For example, students taking General Psychology in the Fall 2007 term, and then P199 in the Spring 2008 term, would have some knowledge of the various disciplines within psychology and distinctions between professionals. A second general pattern to note is that in the pre- and post-test data (Dr. Holcomb's course), improvement was noted in all areas regarding demonstrated knowledge of central content. Therefore, it seems fair to assume that the course is meeting to at least some degree its objectives of educating students about education and careers in psychology.

Regarding an area of obvious strength, it appears that by their completion of the P199 course, students have a very strong understanding of employment issues related to pursuing a degree in psychology. This is a highly desirable outcome of this assessment, as it is a clear goal of the Psychology Program to ensure that its graduates have a good grasp of what career possibilities to expect upon completion of their degree. As at other institutions, IU Kokomo psychology students have a wide range of goals and interests, and thus it is very important that they have realistic expectations about the awaiting job market for psychology majors. In addition, having general knowledge of what makes a person a desirable candidate for employment is a valuable life skill.

A central content area of the P199 course showing mixed outcomes concerned the students' ability to identify major differences between disciplines within psychology. While students seemed to have a grasp of areas of interest for certain disciplines, some important distinctions between professionals involved in practice (e.g., Ph.D's vs. Psy.D's; psychologists vs. psychiatrists) remain confusing to a notable proportion of students. Therefore, any instructor teaching the P199 course in the future might be well-advised to review these distinctions carefully. As students progress in their education in psychology, they become better-informed consumers of the services that professionals in the psychological sciences provide to society; therefore, ensuring student understanding of these distinctions is an important step in preparing them to be active consumers.

Regarding educating students about the process of applying to graduate school, the results of this assessment seem to show that students may be more able to speak in the abstract about this process, than to do so in concrete terms. That is, students are able to recognize that a solid application to graduate school contains a variety of elements which cover a wide area of academic areas. Specifically, the vast majority of students recognize that graduate schools generally value high GPA, solid experiences in practice and/or research, strong letters of recommendation from undergraduate

faculty members, and a goodness-of-fit between the student and the program of interest. However, regarding the specific choices that students should make in their undergraduate programs, to support applying to various graduate programs, students in these classes showed much lower comprehension. Part of this issue is the fact that getting accepted into graduate school is a highly competitive process, and no particular path guarantees entry for any student. Another issue is that many students in the P199 course may not intend to attend graduate school at all. Still, future students may benefit from greater discussion of the possible risks and benefits of making certain educational decisions during their undergraduate program, to help them feel more confident about whether their own programs are preparing them for their future goals.

Other data collected to assess the major

Senior-level Student Evaluations of Learning Goals

We currently do an indirect evaluation of students' perceptions of the eight learning goals for the psychology major as part of the exit survey our psychology majors in Senior Seminar (PSY P457) are asked to complete during the last several weeks of the course. Although we recognize that the following data does not directly assess student learning, we include it here because it allows the psychology faculty to use this report (and both of the types of data we collect: direct and indirect) to provide ourselves with a more complete picture of our major.

Assessment Method

Psychology majors are supposed to take Senior Seminar in their last Spring semester before graduating. Thus, most students have completed most of their coursework and are expecting to graduate soon (in May or the next December). On the survey, students are asked to respond to questions about current and future employment, graduate school application and acceptance, and both strengths of and changes needed in the psychology program.

In Spring 2008, 10 students completed the survey. Students did not put their names on the surveys (i.e., they were not anonymous). A psychology faculty member reviewed the surveys and summarized themes emerging from the student responses. All psychology faculty then discussed the results and possible ways to address areas of concern at our annual summer retreat.

The psychology faculty consider this survey very useful in providing information on the future plans of our graduates and their attitudes and suggestions about the curriculum. In this assessment report, as requested of us, we will focus only on those results relating to student learning goals. We recognize these data are on student attitudes and beliefs and are not a direct measure of student learning. Nonetheless, we believe the results are useful in helping us evaluate and generate ideas on how to improve the psychology major. Obviously, we are limited by the small sample size. Thus, any results may have questionable generalizability and can only be suggestive of areas for discussion and further attention.

A series of questions asked students to rate how effective the psychology program has been in helping them learn in each of the following areas. The items in this section of the survey correspond to our 8 learning goals. Here is a summary of the results.

Table 6 Student Perceptions of Psychology Program Effectiveness on the Eight Learning Goals

<i>Area (related Goal #)</i>	<i>Not at all effective</i>	<i>Not very effective</i>	<i>Somewhat effective</i>	<i>Very effective</i>	<i>Extremely effective</i>
Content or Knowledge Base (#1)	0	0	3	6	1
Research Methods (#2)	0	0	5	2	3
Critical Thinking (#3)	0	0	1	6	3
Applying Concepts (#4)	0	0	0	5	5
Ethics (#5)	0	0	4	4	2
Writing (#6)	0	0	4	4	2
Quantitative Literacy (#7)	0	3	3	3	1
Career Planning/Develop. (#8)	1	1	3	5	0

Students were asked about the psychology program's greatest strengths. There were several positive comments about the faculty (e.g., caring staff, always willing to help; great professors, interesting classes; good teaching; faculty are excellent and readily available; helpful professors). Other strengths mentioned were critical thinking and application, the P390 (special topics) courses, the wide variety of classes, research, and writing papers and learning APA style.

When asked what aspects of the psychology program they would change, students offered the following suggestions: have more outside lecture events, special speakers, in-house presentations of IUK students; offer classes more often; offer more options on statistics and learning; require neuroscience; and have more career advising and information about employment options with a B.A. in psychology.

Overall, 9 of 10 agreed that, regardless of financial benefit, their college education improved the quality of their lives.

IV. Using Assessment for Program Improvement

Goal 1: Knowledge Base, Outcomes 4-11 (Statistics, Biological Bases, Learning, Cognition, Development, Individual Differences, Psychological Disorders/Treatments, Social Psychology). We are pleased that we are meeting the benchmark of having at least 75% of students achieve the 50th percentile or higher on at least one of the subtests relating to our Cluster 2 courses (Learning, Neuroscience, and Cognition; Outcomes 5, 6, & 7). We are close to meeting the same benchmark (70% rather than 75%) with the subtests relating to our Cluster 1 courses (Personality, Social, Health, and Abnormal; Outcomes 9, 10, & 12). However, we did not meet the benchmark for Outcomes 1, 3, 4, & 8 (Psychological Perspectives, Research Methods, Statistics, and Developmental). We have already instituted a new course requirement, P495 History & Systems of Psychology in response to Outcome 1. This course emphasizes psychological perspectives; students in this year's seminar did not have that course. Students entering into the program Fall, 2006 or later should be taking the course during the Fall semester of their Senior year. We should begin to see improvements in Outcome 1 over the next

several years as we move from having a few students who voluntarily take P495 to having all students take P459. The psychology faculty also discussed the need to increase the frequency with which students have to read research articles from professional journals in their 300 level courses. Discussion of and/or written assignments based on reading research articles should help students review both research methods and statistics. We believe the difficulty with Outcome 8, Development, is that students take the course corresponding to this very early in their academic careers and have probably forgotten quite a bit of the content. Given that, perhaps 50% at the 50th percentile isn't so bad, but we need to discuss this further as a group. Since we met or came close to meeting the benchmarks for Outcomes 3 (research methods) and 4 (statistics) last year, we will be watching next year's performance on those two outcomes closely in order to determine if this year was an aberration or whether the trend continues.

Goal 2: Research Methods, Outcome 3, Design Basic Studies to Address Psychological Questions. This year, had we not revised our definition of what we considered “appropriate” for the component of “Hypothesis Appropriate to Method” as we did the assessment, we would have seen a small improvement in percentage of individuals achieving the desired pattern of performance for this outcome. The faculty who teach the course associated with this outcome will need to add a prompt to the instructions for the hypothesis assignment that reminds students to pay more attention to whether their hypothesis is worded in a way that fits with the data collection method used (i.e., a survey). Because we have now seen improvements in students ability to write a hypothesis appropriate to their literature for two years in a row, we will continue to use the revised hypothesis assignment that we devised to address this problem. Student difficulty writing clear operational definitions has continued, and increasing emphasis on the importance of that section of the research report has not helped a great deal. Although students in this class already do a homework on operational definitions early in the semester. The problem seems to be one of transferring that understanding to the more complex situation of writing about their own study much later in the semester. The faculty teaching the course need to consider either an in-class discussion or an additional homework activity that might help them practice this. It might help, for example, to have them discuss the operational definitions they see others write on the day when they do their peer reviews of one another's introduction and method sections.

Goal 8: Career Planning and Development. In general, we are seeing student improvement in basic knowledge of careers in psychology based on the preliminary pre-/post-course data we have collected from the quiz in the P199 Planning your Psychology Career class. However, based on the post- course quiz scores we are now aware we need to more thoroughly or perhaps more frequently clarify differences between psychologists and psychiatrists and between the Ph.D. and Psy.D. degrees. At present, we have no plans to change the assessment instrument itself, other than to perhaps add a few additional items to it as we proceed. However, student feedback (both informal verbal comments as well as course evaluation comments) indicate to us that students are dissatisfied with the course. In large part that may be because what they need is in-time information: some of the students need the careers information from the course but are past the point of needing the advising and curriculum information, while other students need the advising and curriculum but aren't really ready to think about careers in any depth. We are currently discussing whether this should be a required or an optional course or whether

it might be more effective to provide the information in other ways such as on-line or at informal lunchtime get-togethers open to psych faculty and psych students.

Senior Exit Survey.

We were pleased that the seniors had mostly positive things to say about the psychology program and faculty. The majority thought we were somewhat to extremely effective in all areas. The most positive ratings were in the areas of critical thinking and applying concepts (with 90% or higher rating the program as very or extremely effective in these areas). We hope to continue to excel in these areas.

The two areas with a few (2 or 3) students indicating we were not very or not at all effective were (a) quantitative literacy and (b) career planning and development. No specific comments were given for these areas, so it was somewhat difficult to determine which specific aspects they thought were not effective. We did, however, discuss possible ways to improve in these areas.

For quantitative literacy, in past years on the exit survey a couple students suggested more integration of statistical concepts beyond the one statistics course. The faculty have discussed ways to review or point out examples of basic statistical concepts (e.g., mean, standard deviation, correlation, significance level, hypothesis testing) in other courses, specifically research methods, senior seminar, and upper level content courses (e.g., learning, cognitive psychology, personality, social psychology). This could provide a refresher and help students better understand how statistical tools and concepts are used in research contexts. Also, continuing to encourage students to take statistics by their early junior year might make them more prepared to recognize examples of these concepts in their subsequent courses.

With regard to career planning and development, we have begun discussions to reassess the role of the PSY P199 (Introduction to the Psychology Major) 1 credit course that addresses career information. It seems students may differ as to when they want career information (with this course coming before some are ready to focus on and take in specific information in these areas). Thus, we are exploring options for this course. Other ideas being considered would be providing career/employment information on-line (in on-line modules or through web links) or through occasional workshops or brown bag lunches on various career/employment-related topics.

V. Dissemination of Results

An electronic copy of this report will be sent to all psychology majors via the campus email system at the beginning of the Spring semester (January, 2009). Information from the report will also be shared with students in the P199 Becoming a Psychology Major course in Spring, 2009. In addition, a brief, paragraph-length summary of this report will be written and submitted to Sharon Calhoon. This brief summary will be incorporated into a web page containing similar summaries from other degree programs and a link from the brief summary to a copy of the complete assessment report will be established.